

2023 RCP NETWORK GATHERING



EMBRACING COMPLEXITY THROUGH PARTNERSHIP



Integrated Conservation Strategies for Greater
Climate Resilience: A Panel Discussion



Integrated Conservation Strategies for Greater Climate Resilience: A Panel Discussion



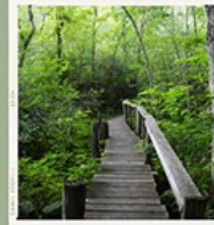
David Foster
Brian Donahue
Mark Wamsley
Amy Sheldon
Stephanie Cooper

Convener: Marissa Latshaw Moderator: Liz Thompson

2023 RCP NETWORK GATHERING



EMBRACING COMPLEXITY THROUGH PARTNERSHIP



David Foster

Wildlands Woodlands Farmlands & Communities

BIODIVERSITY AND CLIMATE CHANGE

Scientific outcome



IPBES

Intergovernmental Science-Policy Platform
on Biodiversity and Ecosystem Services

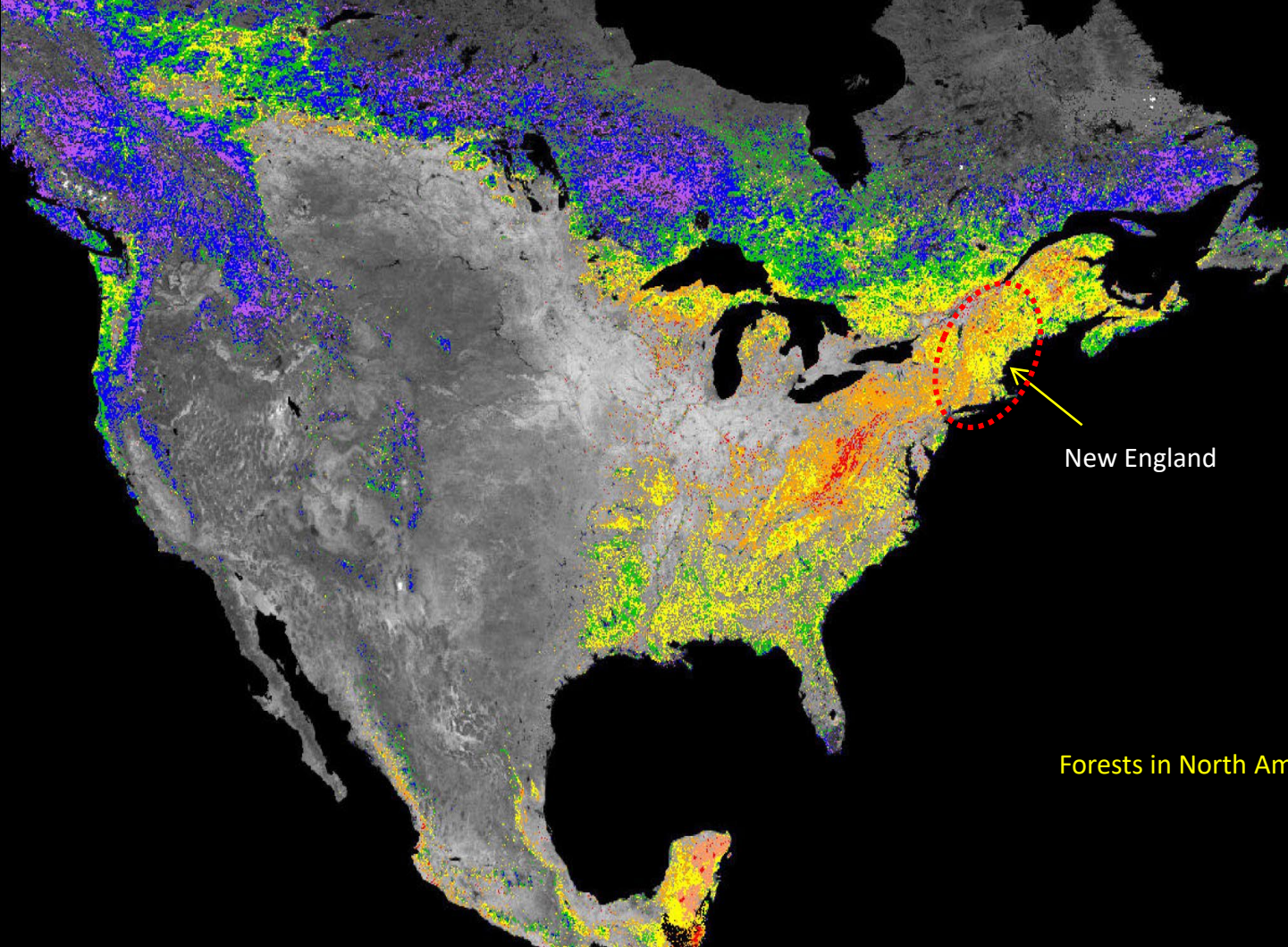
IPCC

Intergovernmental Panel on Climate Change

Global Crises – Inextricably linked

Climate Change
Biodiversity Loss
Human Well-being

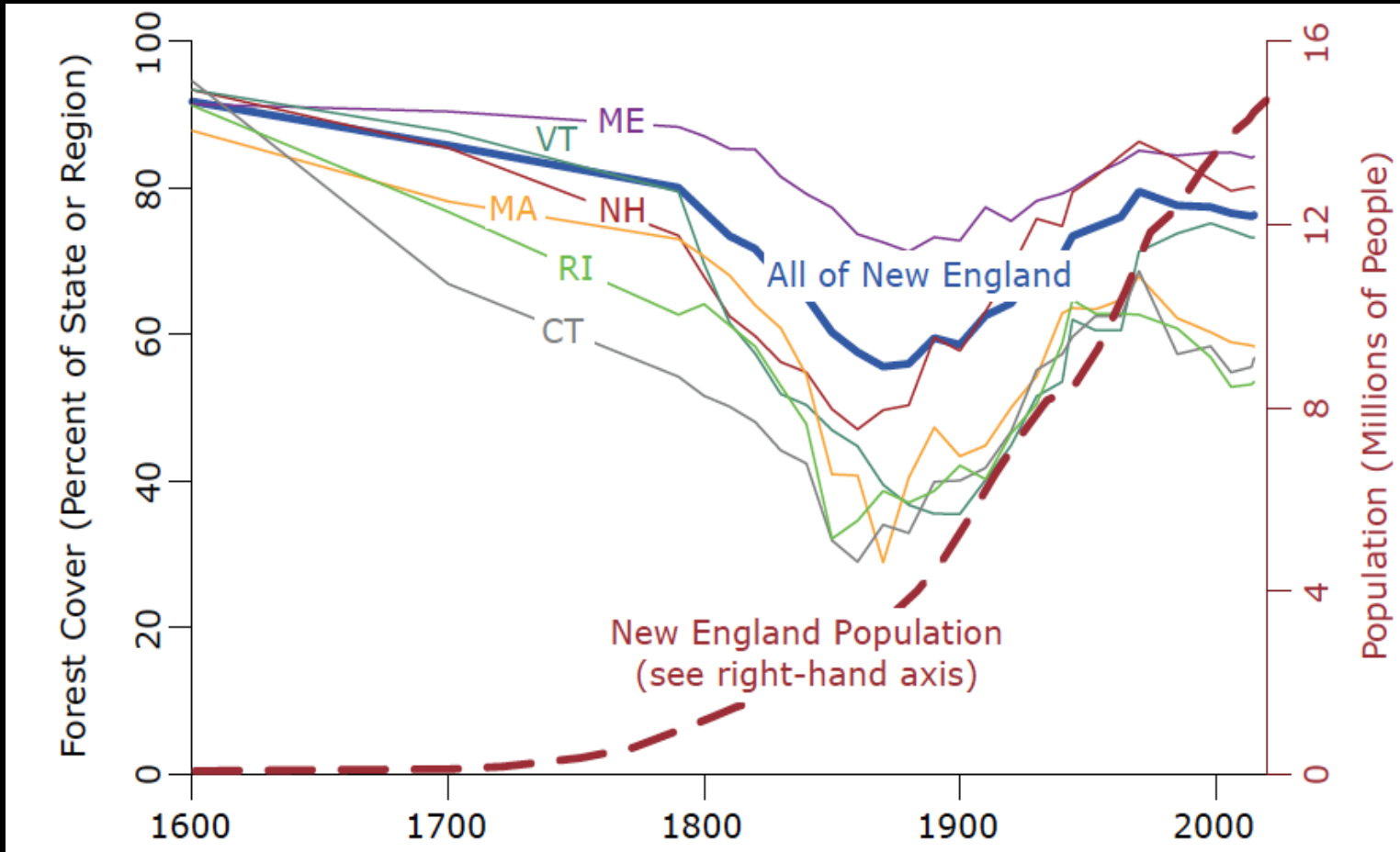
Solutions – Necessarily Integrated in Nature



New England

Forests in North America

New England – “A Great Environmental Story”





Petersham, Massachusetts

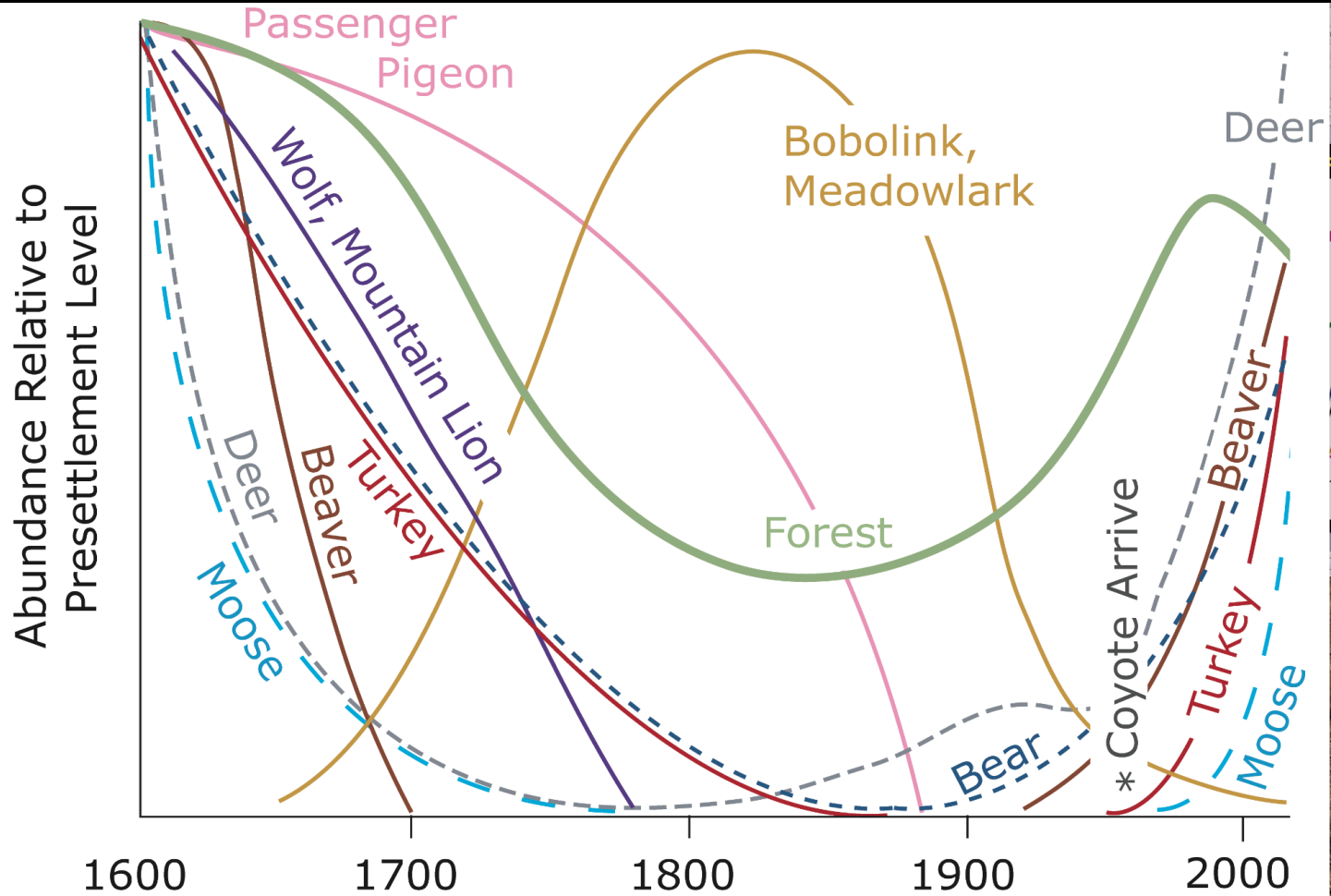


1890



Today

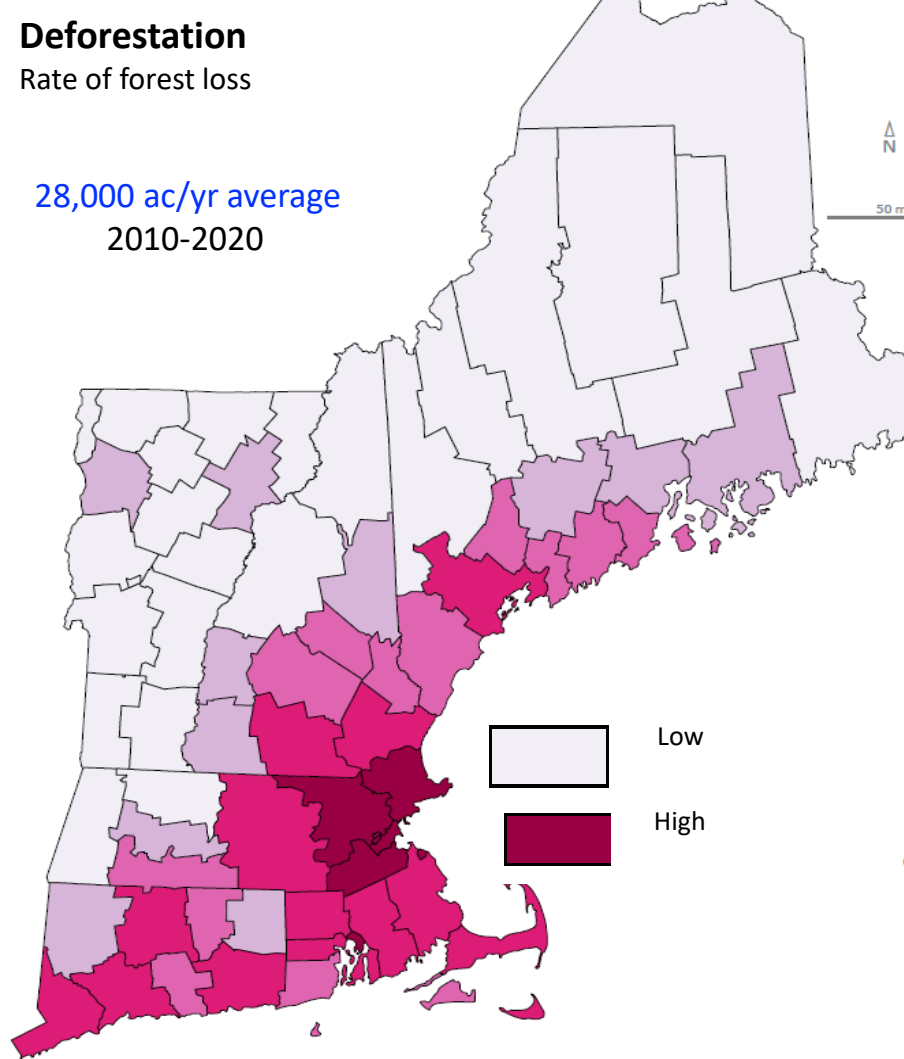
Wildlife Dynamics in the New England Landscape



Deforestation

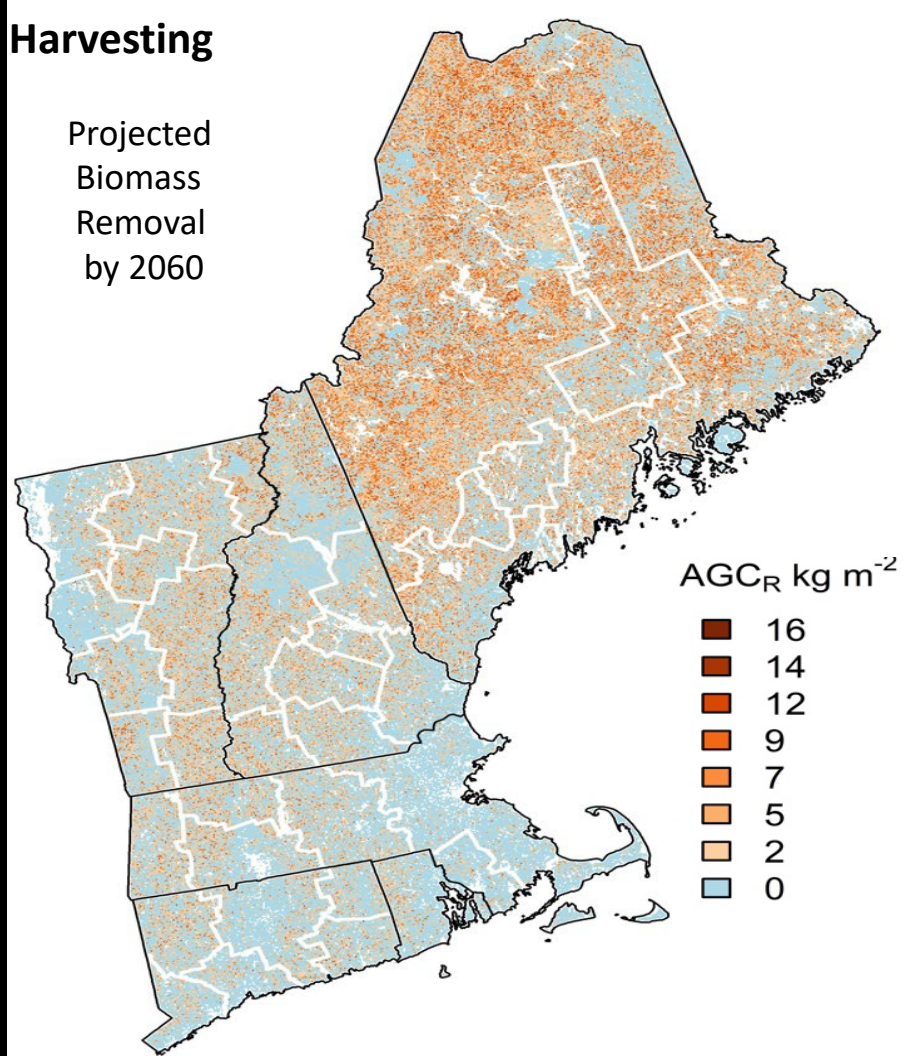
Rate of forest loss

28,000 ac/yr average
2010-2020

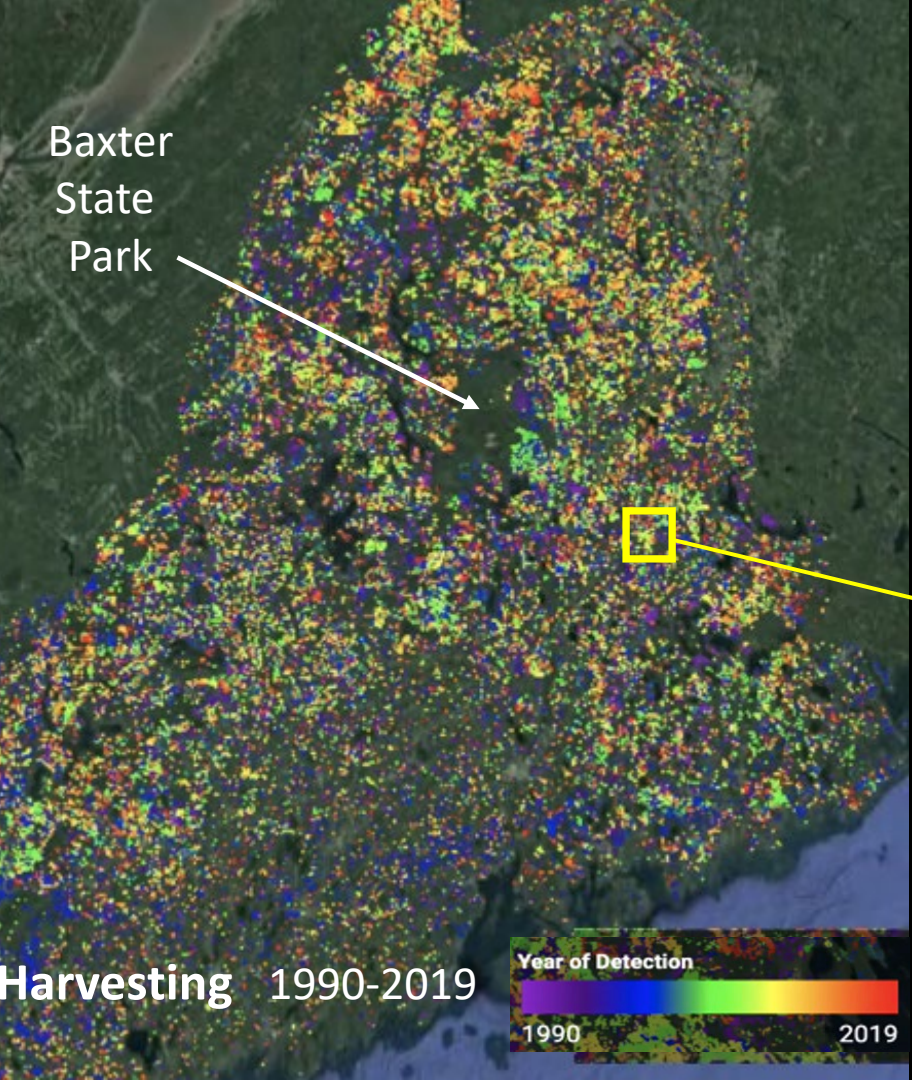


Harvesting

Projected
Biomass
Removal
by 2060







Land Use Impacts Cause and Exceed Climate Change





Wildlands and Woodlands

A Vision for the New England Landscape



2010



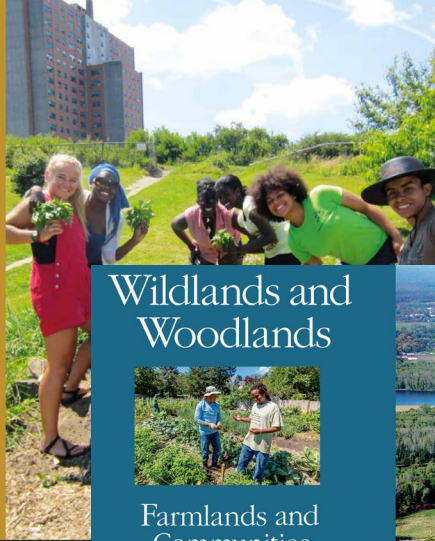
Wildlands Woodlands Farmlands Communities

A New England Food Vision



- Healthy Food for All
- Sustainable Farming and Fishing
- Thriving Communities

2014



Wildlands and Woodlands



Farmlands and Communities

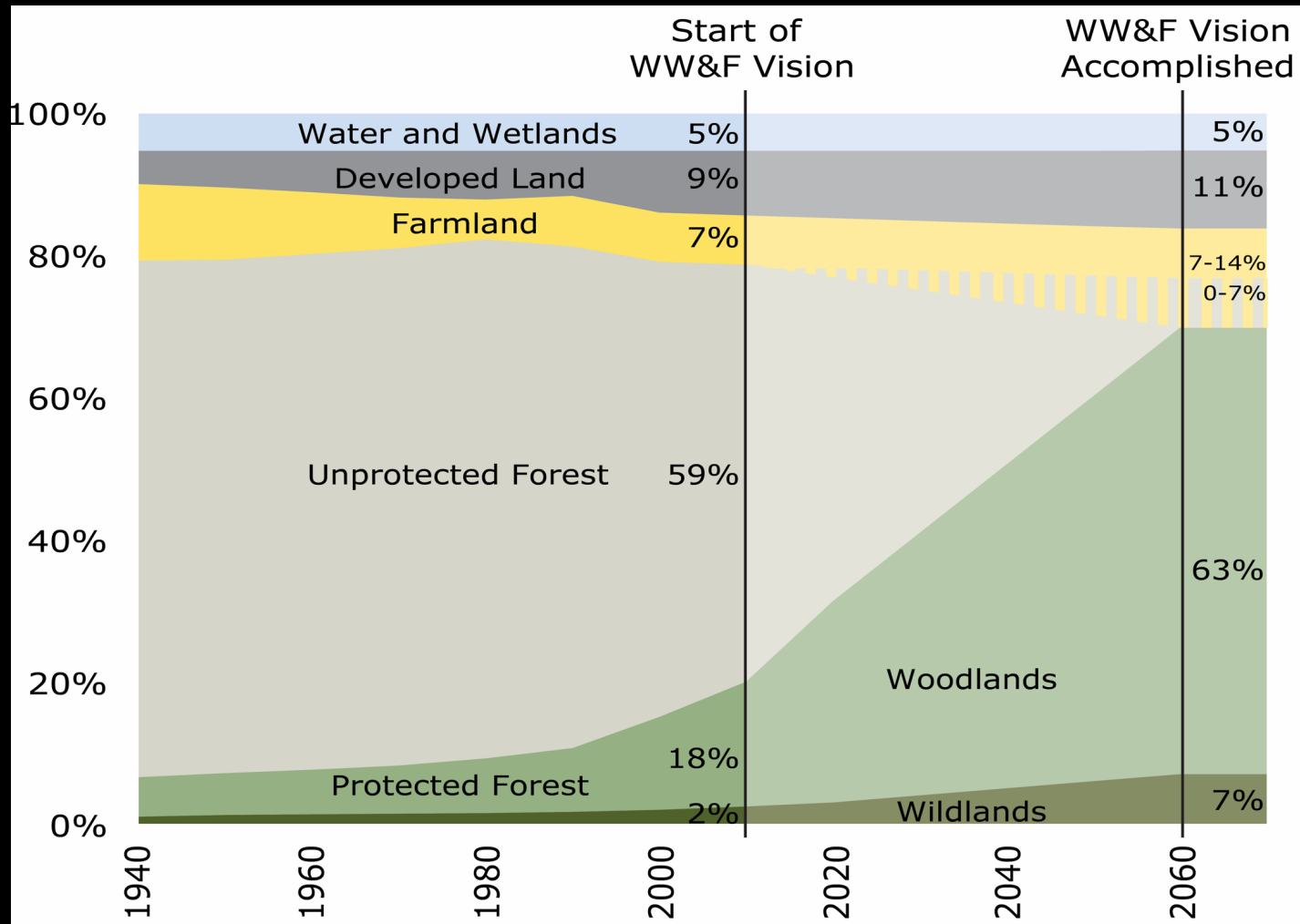
Broadening the Vision for New England




2017



Wildlands and Woodlands Vision



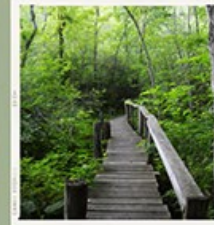
A satellite-style map of the Chesapeake Bay region, showing the bay and surrounding land in shades of green and brown. Several white lines radiate from a central point on the bay towards the text on the right. The text is in a white, italicized serif font.

*what can we do
better together as a
region than separately
as states and
communities?*

2023 RCP NETWORK GATHERING



EMBRACING COMPLEXITY THROUGH PARTNERSHIP



Brian Donahue
New England Food Vision

A New England Food Vision



- *Healthy Food for All*
- *Sustainable Farming and Fishing*
- *Thriving Communities*





EXECUTIVE SUMMARY

A REGIONAL APPROACH TO FOOD SYSTEM RESILIENCE

MAY 2023



NEW ENGLAND FOOD SYSTEM PLANNERS PARTNERSHIP



New Supporting Partners



Bonita Oehlke



Abbey Willard



Joshua Marshall



Michelle Webb



Julianne Stelmaszyk



Cyrena Thibodeau



16 Researchers

- Brian Donahue, PhD – formerly at Brandeis University; Dietary Patterns Team Lead
- Christian Peters, PhD – USDA Agricultural Research Service’s Food Systems Research Unit; Production Team Lead
- Nicolas Rockler – Kavet, Rockler and Associates; Economic Impact Lead
- Holly Fowler, MBA – Northbound Ventures Consulting, LLC; Market Channel Team Lead
- Dr. Sarah Amin, PhD – University of Rhode Island
- Laura Barley – formerly at American Farmland Trust
- Ramón Borges-Méndez, PhD – Clark University
- Michelle Klieger, MBA – Helianth Partners, LLC
- Hannah Leighton – Farm to Institution New England
- Ashley McCarthy – University of Vermont
- April McIlwaine – University of Vermont
- Scott Richardson, PhD, MBA – Northbound Ventures Consulting, LLC
- Scott Sawyer, PhD – Project Editor, Researcher and Designer
- Sarah Schumann – Shining Sea Fisheries Consulting
- Dr. Joshua Stoll, PhD – University of Maine
- Dr. Eric von Wettberg, PhD – University of Vermont



By 2030, 30% of the food consumed in New England is produced/harvested/caught within New England.

Our collective effort will focus on expanding and fortifying the region's food supply and distribution systems in an equitable and inclusive way that ensures the availability of adequate, affordable, socially and culturally appropriate products under a variety of rapidly changing climate, environmental, and public health conditions.





VOLUME 2

ESTIMATING PRODUCTION FOR 30% REGIONAL SELF-RELIANCE

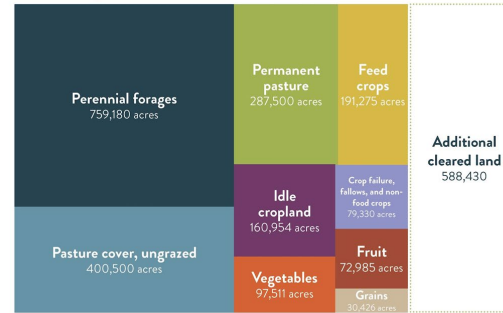
MAY 2023



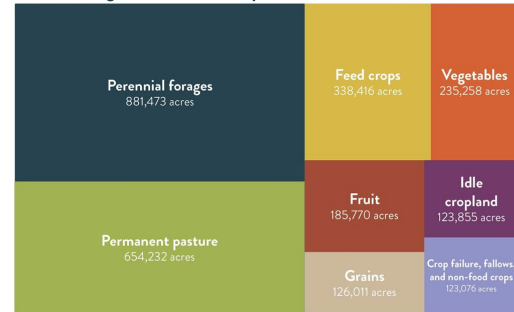
Additional Land Needed in Agricultural Production to Achieve 30% RSR

To achieve 30% regional production available for consumption (in servings), **400,000** in existing underutilized cropland and **590,000** in new cropland would need to be brought into production.

Land in Agriculture (2017): 2,079,661 acres



Estimated Agricultural Land Required for 30% RSR: 2,668,092 acres



2023 RCP NETWORK GATHERING



EMBRACING COMPLEXITY THROUGH PARTNERSHIP



Mark Wamsley
Kestrel Land Trust



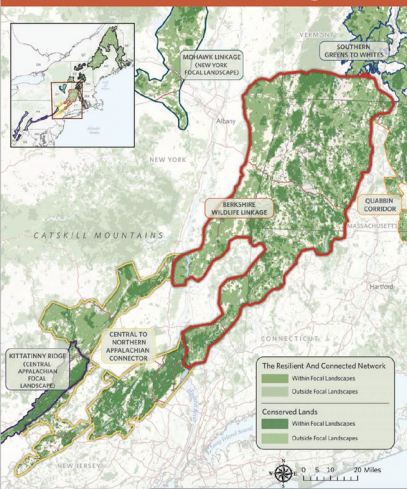
Integration in Practice

Mark Wamsley
Conservation
Director





Berkshire Wildlife Linkage



Overview

The Berkshire Wildlife Linkage encompasses the Berkshire Plateau and Taconic Ridge in Massachusetts and extends north to the Green Mountains in Vermont, and south and west through Connecticut and New York to the Hudson Highlands. It serves as a critical corridor to the Central Appalachians, feeding into lands of the Central to Northern Appalachians Connector in New York, New Jersey, and Pennsylvania.

The Berkshire Wildlife Linkage includes the most intact forest ecosystems in southern New England and some of its highest carbon stocks. While ownership patterns are fragmented, there are still abundant parcels greater than 100 acres (many above 200 acres) representing important and time-sensitive land protection opportunities. Intergenerational transfer of land has been important and will continue.

The geography is dominated by non-industrial private forest landowners, complemented by significant state-owned lands and some municipal, non-profit and federal holdings. Many state properties exceed 5,000 acres, with some greater than 10,000 acres, and in some towns, more than 40% of the land is owned by the state.

The economy in this landscape is largely tourism-and recreation-based, with a small and diminishing forest products industry. Many towns have small populations and are struggling financially. Exceptions are in the Southern Berkshires, where there is a more diverse economy based on second home development. While land values have been as low as \$3,500/acre, a COVID-19 influenced population influx is likely to change this.

Conservation actions include:

- Land protection to secure large parcels and to improve landscape connectors so wildlife can move
- Supporting land trusts and partners with science, planning, funding, and land protection projects
- Collaborative engagement with family forestland owners (parcels of 30-2500 acres) to improve forest management practices, including implementation of carbon market programs (Family Forest Carbon Program and/or Forest Carbon Co-ops)
- Outreach to and collaboration with land use planners to avoid development of key natural lands
- Engagement on renewable energy siting to avoid compromising key natural lands
- Collaboration with the transportation sector to lessen the impacts of roads that fragment the landscape



The Friends of Conte

A regional conservation partnership of more than 70 public and private organizations whose collective efforts forge mutually beneficial partnerships and strengthen the health of the Connecticut River watershed and the communities that live in and are served by it.




**Natural Resource & Climate Data
Large Scale Resiliency Plans & Initiatives**



LAND PROJECTS



**Community Conservation
& Local Resiliency Needs**

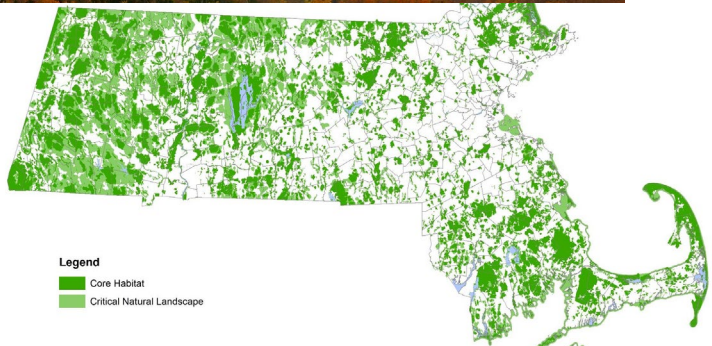


BIOMAP



The Nature Conservancy

Resiliency Data & Guidance



Legend

- Core Habitat
- Critical Natural Landscape

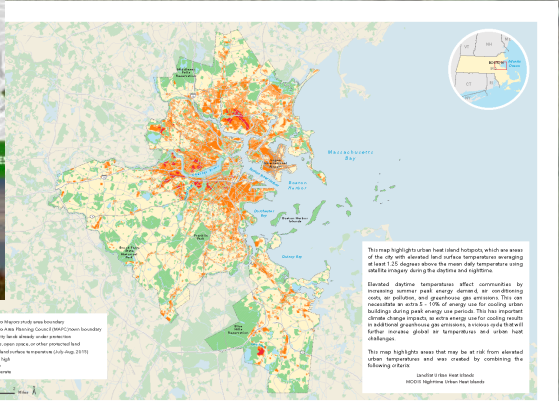
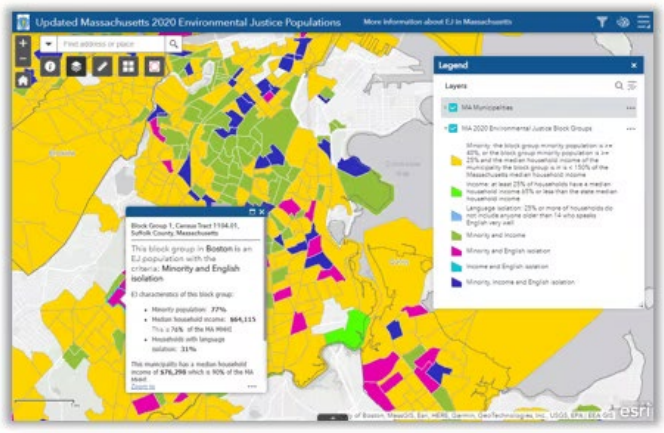
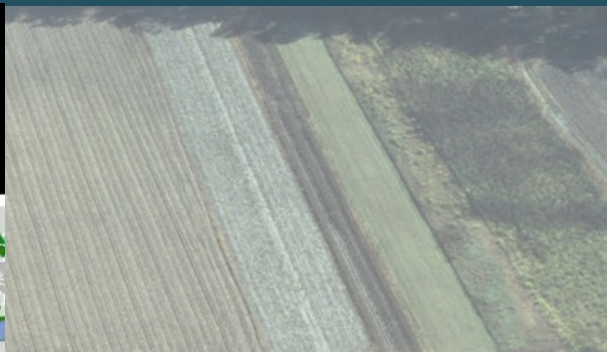
Resilient and Connected Landscapes for Terrestrial Conservation

The Nature Conservancy
Ecosystem Conservation Science

RESILIENT LANDS

CONNECTED LANDSCAPES

CONSERVATION STRATEGIES





MVP

Municipal Vulnerability Preparedness

Resiliency Plans, Programs & Initiatives

127 state agency actions*	95 actions to increase coastal resilience <small>S&A 2019</small>	75 actions to improve resilience of state assets	80 actions to address extreme temperatures	1 ResilientMass Plan
110 actions to reduce flooding in Massachusetts	30 actions to increase economic resilience \$ \$ \$	35 actions to protect and enhance biodiversity 		

* Actions can address multiple risks.

From the Ground Up



About

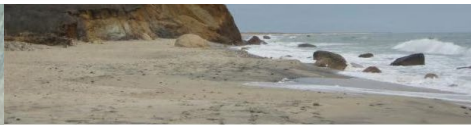
ISSUE #1 • AUTUMN 2023

From the Ground Up

Conversations about conservation, climate, and communities in New England.



MASSACHUSETTS FARMLAND ACTION PLAN 2023-2050



ResilientMass Plan

2023 MASSACHUSETTS STATE HAZARD MITIGATION AND CLIMATE ADAPTATION PLAN

EXECUTIVE SUMMARY | September 2023



DECEMBER 2022

Clean Energy and Climate Plan for 2050

RELEASED!

The Massachusetts Healthy Soils Action Plan

Mountain Waters Landscape Partnership Project

Southampton, Westhampton, Montgomery, MA:

Landscape Scale- Habitat Connectivity/Drinking Water/Carbon

PROJECT PARTNERS

Mass Audubon

Mass Dept. of Agricultural
Resources (MDAR)

Town of Southampton

Holyoke Water Works

Partner Roles:

Participating partners must be willing to hold a future interest in a participating property. Land can be held in fee, or partners may hold a CR, WPR, or APR as appropriate. Partners can also protect a currently held fee interest under Article 97 if it has not yet been.

Grant funding can be directed towards any eligible partner's acquisition costs, the 50% match can come from partners, in-kind donations, and bargain sales.

OVERVIEW

The Mountain Waters project will permanently protect 1,025 acres of wild and working land that exemplifies every goal of the Landscape Partnership Program. In a region notable for its ecological integrity and climate resilience, the project is named both for the prominent landmark, Pomeroy Mountain, as well the waters that flow through its surrounding, vast swaths of forest. Those waters feed important waterways such as the Mahan and Connecticut Rivers and provide clean drinking water to multiple urban and rural communities as they replenish the Tighe-Carmody Reservoir and Barnes Aquifer.

The project is a result of a multi-year year effort amongst conservation partners, led by the Southampton Open Space Committee and Kestrel Land Trust, which have worked to foster a culture of conservation in the community and build trusting, positive, and productive relationships with local landowners. The project area is a high priority for conservation by the Town of Southampton's Master Plan and Open Space and Recreation Plan, the City of Holyoke's Water Resource Protection Plan, Berkshire Wildlife Linkage Regional Conservation Partnership, and all area land trusts. The land to be protected is 2/3rds BioMap Core Habitat and is almost entirely comprised of BioMap Critical Natural Landscape. It rates well above average for climate resilience, is identified as a key area for landscape connectivity, and is comprised of a considerable number of intact core forest blocks. Permanent protection of this land will formally open a large area to passive recreation while in other areas, preserving surface drinking water supply and prime farmland soils.

Funding: The State Landscape Partnership grant can award up to \$1.25 million as a reimbursement, a 50% match is required.

Timeline: The first project can take place over the course of 2 years. Multiple phases of this project are possible.

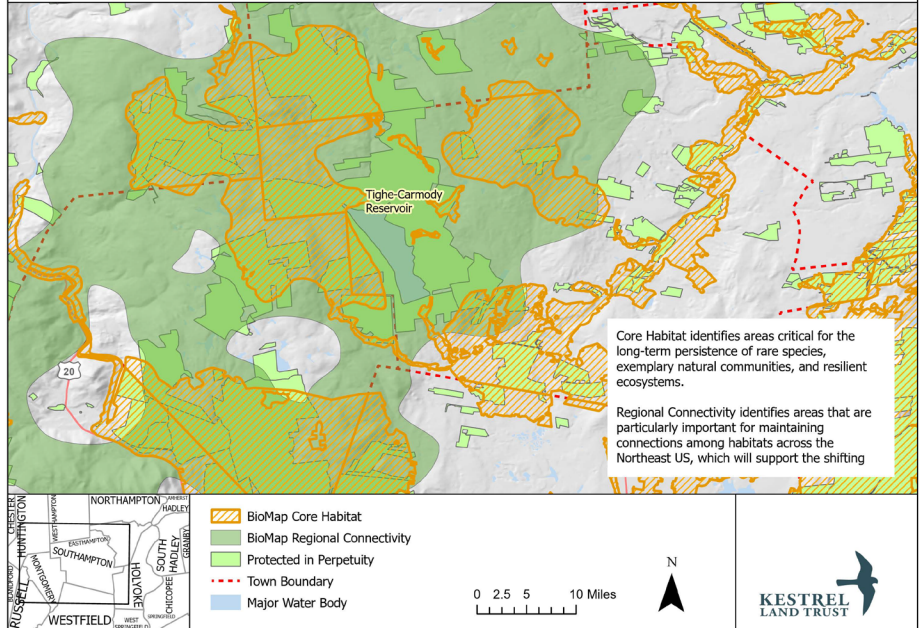
Application Deadline: April 18th, 2023

Anticipated Grant Award: July 2023

Grant Contract Period: July 2023 – June 30th 2025

SOUTHAMPTON BIOMAP: CORE HABITAT AND REGIONAL CONNECTIVITY

2/2/2023



Data provided by MassGIS and/or local municipalities. Data are approximate and provided without warranty or liability. This map is not a survey.

Connecticut River Watershed: Wildlands and Woodlands Project

Western MA
March 2023

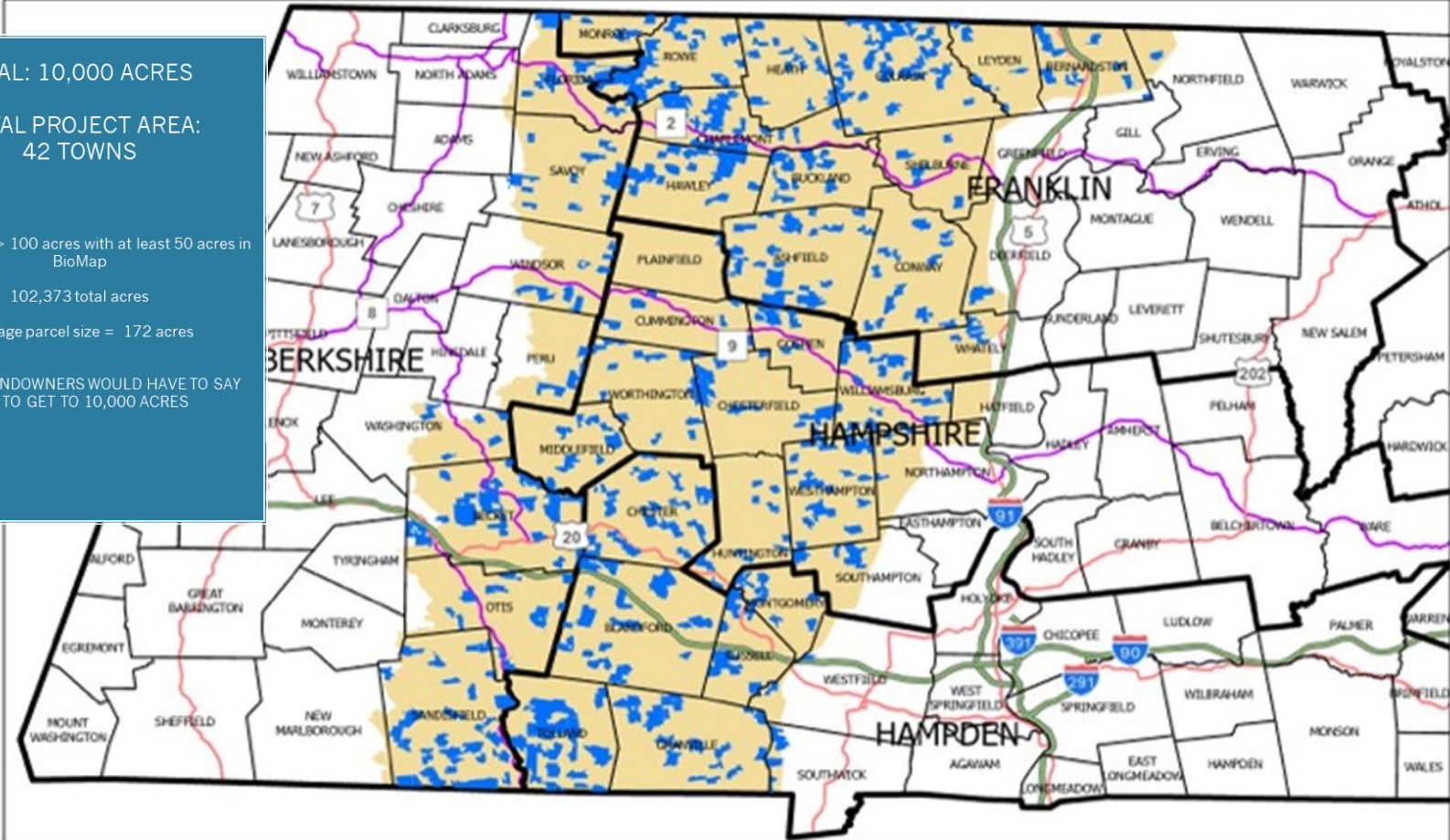
GOAL: 10,000 ACRES
TOTAL PROJECT AREA:
42 TOWNS

595 parcels > 100 acres with at least 50 acres in BioMap

102,373 total acres

Average parcel size = 172 acres

10% OF LANDOWNERS WOULD HAVE TO SAY YES TO GET TO 10,000 ACRES



MASTER PLAN OF RECONNECTING ANNIVERSARY HILL PARK

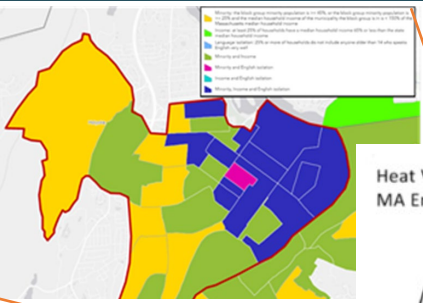
CITY OF HOLYOKE, MASS.
 Prepared for the City of Holyoke
 Department of Conservation and Sustainability
 by GZA, Geospatial, Inc.
 September 2023

- LEGEND**
- PROPERTY BOUNDARY
 - EXISTING ROAD
 - MAINTENANCE ROAD
 - EXISTING TRAIL
 - PROPOSED HIKING TRAIL
 - PROPOSED ACCESSIBLE TRAIL
 - REMOVE INVASIVE VEGETATION, PROTECT ORCHARD, HAYMOW, PRUNE ESTABLISH LAWN/HEADS
 - WETLAND
 - STREAM
 - PROPOSED PEDESTRIAN ACCESS POINT WITH WINDING TRAILHEAD KIOSK
 - CONCRETE OBSERVATION DECK STRUCTURES
 - SCOTT'S TOWER
 - PROPOSED BUILDING
 - EXISTING GILL TOWER
 - * TO BE CONSTRUCTED FROM FUNDING SOURCES

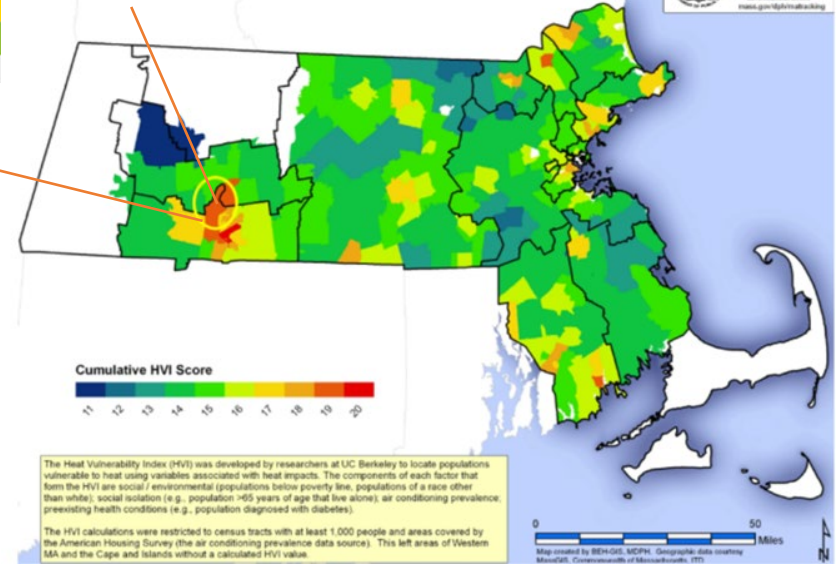
1. NEW PARKING AND TRAILHEAD INFORMATIONAL KIOSK
2. NEW ACCESSIBLE TRAIL FROM NEIGHBORHOOD TO ANNIVERSARY HILL PARKS MULTI-USE PATH
3. NEW ACCESSIBLE TRAIL AND BOARDWALKS INCLUDING BRIDGE OVER EXISTING INVERTIBLE-41 STORM CULVERT HEADWALL
4. IMPROVE PEDESTRIAN ACCESS POINT, NEW PARK SIGNAGE, TRAILHEAD KIOSK, VEHICLE AREAS, INCLUSIVE CURB BOLLARDS, LANDSCAPING
5. IMPROVE ROAD AND PEDESTRIAN ROUTE UNDERPASS UNDERPASS, CLEAR VEGETATION, WEAR PEDESTRIAN ROUTE, NEW FENCE, LIGHTING, SIGNAGE
6. NEW PARKING AREA WITH ACCESSIBLE PARKING SPACES
7. NEW MULTI-USE SHARED TRAIL/ROAD WITH SHARED IMPROVED STORMWATER INFRASTRUCTURE, INSTALL GUARDRAILS
8. IMPROVE EXISTING TRAILS THROUGHOUT
9. NEW SEATING/OVERLOOK AREAS ALONG MULTI-USE SHARED TRAIL
10. REPAIR CCC-BUILT STONE RETAINING WALLS, PEDESTRIAN BRIDGES, DAM, AND SPILLWAY
11. REPAIR/IMPROVE STORMWATER DRAINAGE PIPE UNDER ROAD
12. NEW PICNIC PAULIKIN
13. NEW RESTROOMS & PARKS MAINTENANCE BUILDING
14. NEW PARKING AREA WITH ACCESSIBLE PARKING SPACES
15. NEW NATURE PLAYGROUND
16. NEW ACCESSIBLE RAMP TO FIRST FLOOR OF SCOTT'S TOWER, REPAIR TACKLING CLIMBING FACILITY, INSTALL GUARDRAILS AND RAILINGS
17. ACCESSIBLE TRAIL UNDERGROUND UTILITY CORRIDOR*
18. NEW PARKING LOT WITH ACCESSIBLE PARKING AND TRAIL HEAD KIOSK*



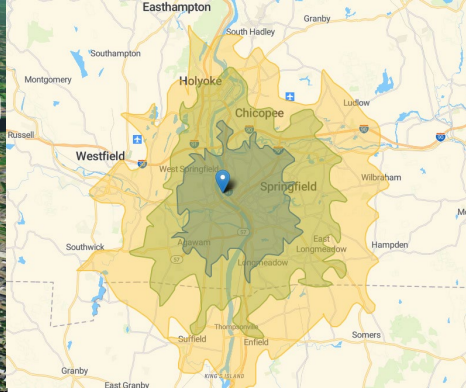
Anniversary Hill Park Holyoke, MA: Environmental Justice/Land Access



Heat Vulnerability Index by Zip Code & MA Emergency Preparedness Regional Coalition Boundaries



Amherst, Agawam, Northampton, and West Springfield, MA: Food Security/Land Access



Integration in RCP's

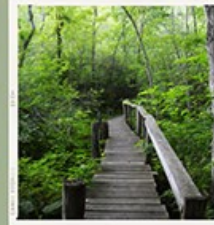
An aerial photograph of a rural landscape. The foreground and middle ground are dominated by a patchwork of agricultural fields in various stages of growth and harvest, showing different colors from brown to green. A straight road or path runs horizontally across the middle of the image. In the background, there is a dense line of green trees, and above that, a body of water is visible under a clear blue sky.

- Where Does Your Region Fit Within Natural Resource Data and Resiliency Plans?
- What New RCP Partners Could Resiliency Encompass?
- Can New Perspectives Bring New Funding?

2023 RCP NETWORK GATHERING



EMBRACING COMPLEXITY THROUGH PARTNERSHIP



Amy Sheldon

Vermont House of Representatives

State Policies That Support Climate Resilience



Amy Sheldon, Conservation Planner, Landslide LLC

State Representative, Chair Environment and Energy Committee

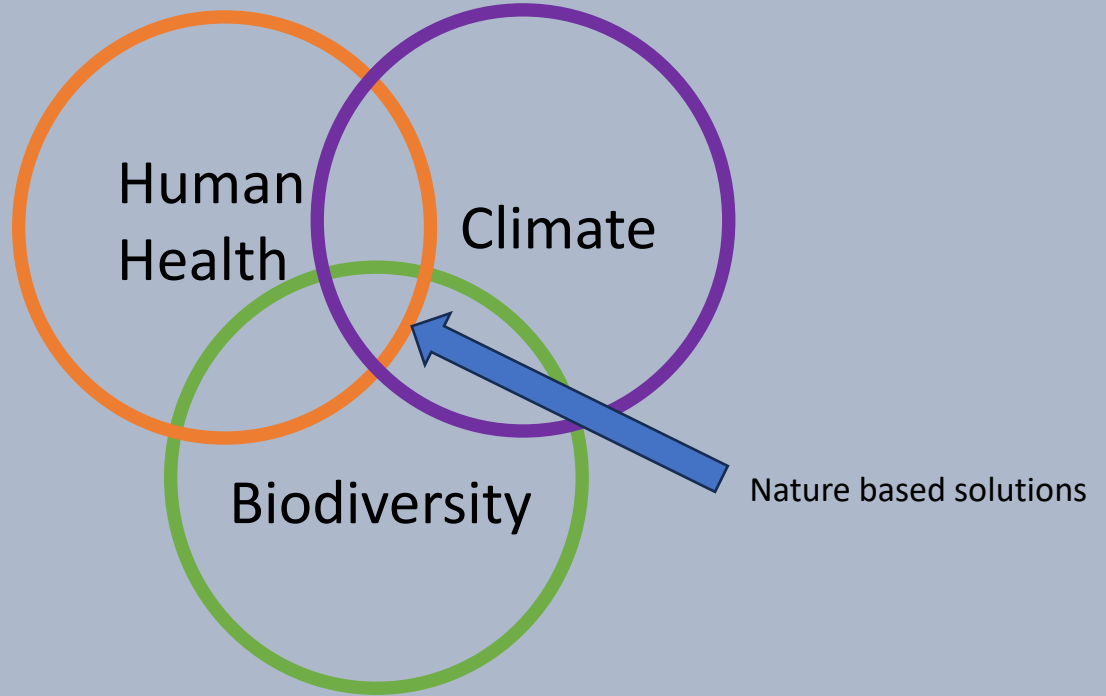
Legislative Branch of Government



- Policy change drivers
- House Environment and Energy Committee area of jurisdiction: conservation and development, climate change mitigation, land resources, air, water, and wildlife, and solid waste management; energy utilities, telecommunications, and broadband; and other similar policies.



Impacts of CC in VT: Three Concurrent Crises



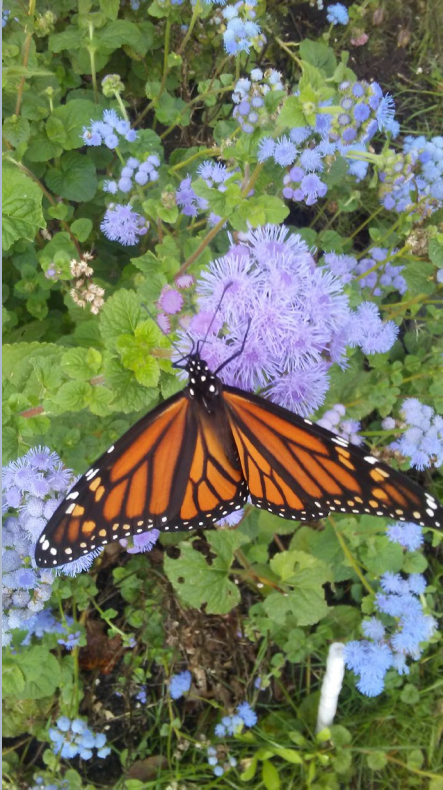
Integrated Approach



- Focuses resources (time, energy, money) on mutually beneficial outcomes and prevents myopic thinking from one solution exacerbating another crisis.
- In practice, it means holding the *vision* for a functioning landscape (biodiversity thriving) front and center as we take *action* to address the human health crisis and the climate crisis.

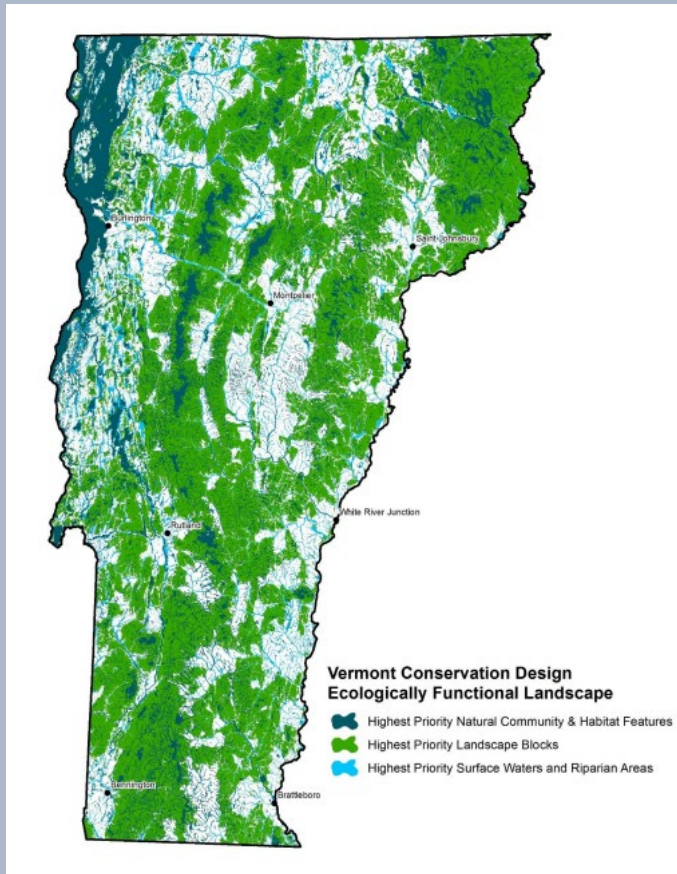
If we integrate nature back into our daily life, we can address all three challenges.

Strategies for Legislative Process



- Set the table with science
- Trust the process by being honest, open and inclusive
- Maintain the long view
- State, regional and local planning is key to addressing challenges

Built on Existing Policy and Work of Partners



- Vermont Housing and Conservation Board working on both housing and conservation for over 35 years.
- Vermont Conservation Design uses science to identify landscape features necessary to support 80% of Vermont's species.

Continuum of Recent Biodiversity Policy



- 2016 – Require towns and regional planning commissions to map forest blocks and habitat connectors
- 2022 - Changes to UVA - allow old forests
- 2022 – Wanton Waste
- 2023 – Community Resilience and Biodiversity Protection Act – creates a vision for Vermont, establishes goals for biodiversity protection of conserving 30% of land and water by 2030 and 50% by 2050
- 2024 – update statewide land use policies that support community resilience and biodiversity protection.

Community Resilience and Biodiversity Protection Act (Act 59 of 2023)

- Creates a *vision* for Vermont
- Defines conservation with a focus on *biodiversity*
- Codifies the goals of conserving 30% of lands and waters by 2030 and 50% by 2050
- Emphasizes the need for *strategic* investments and the need for further policy changes to support meeting the goals



Nature Wants to Partner: How Can RCPs Help?

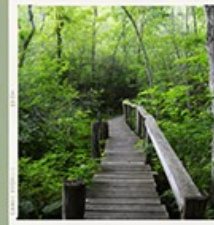


- Get the message out that human community resilience is dependent on intact, functioning ecosystems
- Accept the need for adaptive management
- In VT help implement; other states help pass needed statutory changes
- Think creatively about new tools for landscape conservation
- Be bold – all of us are ready for more

2023 RCP NETWORK GATHERING



EMBRACING COMPLEXITY THROUGH PARTNERSHIP



Stephanie Cooper

Massachusetts Undersecretary for Environment



Integrated Conservation Strategies for Greater Climate Resilience

Stephanie Cooper

Undersecretary for Environment

MA Executive Office of Energy and Environmental Affairs

Stephanie.Cooper3@mass.gov



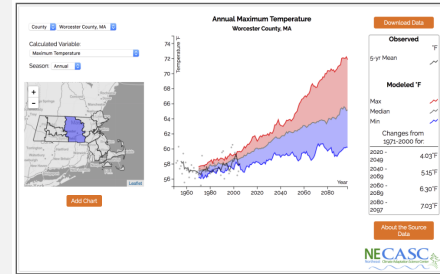


Resilience:

“The ability to prepare for, recover from, and adapt to climate change and associated impacts.” (ResilientMass Plan, 2023)

What Can Government Bring?

- **Information:** Develop plans, support planning, create data tools and share information
- **Funding:** Incentivize approaches, actions and partnerships through funding, and requirements for funding
- **Policy and Regulation:** Advance policies approaches and create / modify regulations to require action



Example: Planning and Data



Example: Incentivized Funding, Municipal Vulnerability Program



Cross-cutting grants program that fosters innovative partnerships

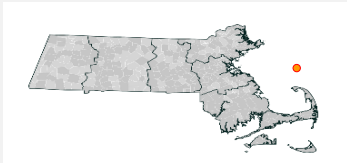
- Community Planning
- Risk Assessment
- Bylaw Development
- Infrastructure Retrofits
- Nature-Based Solutions to mitigate flooding and heat impacts
- Habitat Protect and Restoration

Rocky Hill Greenways: Restoring Pine Grove Golf Course through removing drainage infrastructure, restoring wetlands, and reforestation



MVP
Municipal Vulnerability
Preparedness

Northampton FY20



AWARD

\$225,000

PROJECT TYPE

Nature-Based Solutions

CORE PRINCIPLES
DEMONSTRATED

Nature-based solutions,
Pursuing innovative,
transferable approaches

DESCRIPTION

Part of the Rocky Hill
Greenway

Restoring wetlands and
historic hydrology

Reforesting the golf course

Protecting additional land

Planning for long term full
site restoration



Aerial image of forests and a golf course
Credit: MassGIS

Example: Incentivized Funding Landscape Partnership Program



Goals:

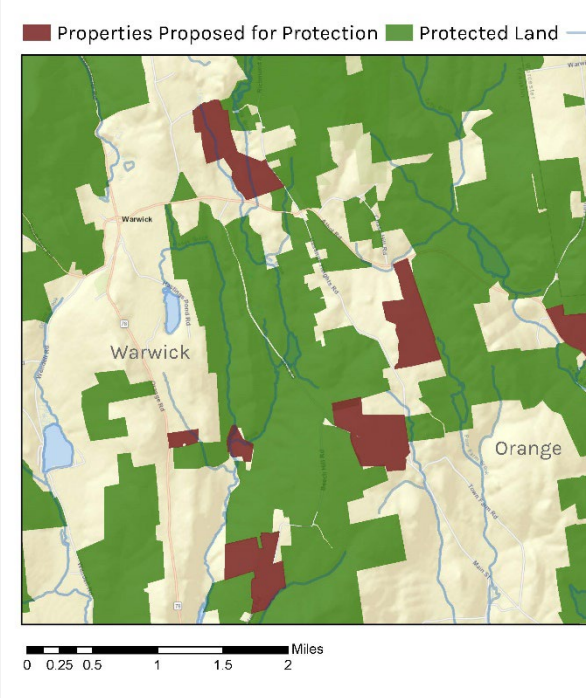
- Protect large-scale landscapes
- Foster partnerships
- Adapt to climate change

Criteria:

- Size Biodiversity
- Connectivity Water resources
- Working lands Recreation
- Stewardship capacity
- Climate change resilience

Revised sliding scale to expand eligibility

Example: Incentivized Funding Landscape Partnership Program



Greater Gales Brook project

- Mount Grace Land Trust
- Mass Audubon
- Town of Warwick
- Protect more than 700 acres and included the establishment of a new Town Forest for Warwick.

Forests as Climate Solutions



Keep Forests as Forests

- Protect 40% of the Commonwealth by 2050
- Expand protection, management & restoration of Natural and Working Lands & their capacity to remove/store carbon
- Incent sustainable forest management practices and use of local wood products

\$40 Million Investment

- Expand landowner incentive programs
- Accelerate investment in forest conservation
- Enhance & expand a network of forest reserves
- Develop forest management guidelines based on the latest climate science
- Implement Resilient Lands Initiative

Opportunities for Collaboration



Biodiversity Goals

Resiliency Initiatives

Holistic Land Use Planning

Resilient Lands Coalition

Land & Forest Programs

Federal Funding

.....and more!

Questions?



Virtual Evaluation Form



Scan the QR to fill out an evaluation form. We welcome your feedback.



(scan with your phone)

